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The effect of supercritical carbon dioxide on secondary relaxation transitions in polysulfone and polycarbonate: The method of conformational probes

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Abstract

The method of FT-IR spectroscopy of conformational probes was used to study the local molecular mobility of polysulfone and polycarbonate before and after treatment by supercritical carbon dioxide. The temperature and the nature of secondary relaxation transitions have been determined. The influence of the supercritical fluid treatment on the temperature of secondary relaxation transitions and the enthalpy differences of the conformations of the probes has been analyzed. © 2013 Pleiades Publishing, Ltd.

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Keywords

FT-IR spectroscopy, local molecular dynamics, method of conformational probes, polymers, relaxation transition, supercritical carbon dioxide